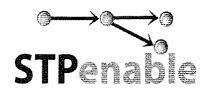
# EXHIBIT A



## Transformer Suite

# Everything you need to manage market data

If you use a reference market data feed like Reuters, Bloomberg or Telekurs, STPenable can manage that feed, make your job simpler and save you time and money.

We integrate 'end of day' and intraday market data pricing feeds into your database and operational systems

View and use the data you need ... in one place

The STPenable solution gathers information from multiple sources to present you with clean, comprehensive market data. It gives you what you need to know, when you need to know it, organized and presented logically and clearly.

### Stay informed

Transformer generates notifications based on watchlists and analytical or value filters. With STPenable, you have a trusted source for issuer and security cross reference data, corporate action events and pricing data.

## Keep your office in synch

The STPenable system allows you to post current information to all your internal systems on a scheduled or event basis. Your entire staff will be working with the same set of trusted, reliable data.

## Save time and money

The advanced Transformer system eliminates the costly overhead of managing errors in typical market data feeds. Implementing the STPenable system is faster transformed less expensive than the alternatives — including the build-your-own option.

Customize your views and add new datafeeds easily

The STPenable system is designed to handle all your market data needs. This system makes it easy to add a new feed, change the events you're tracking or or organize the data in a new way.

malkics seWe stand behind the system, so you don't have to

- The system is engineered for continuous operation
- It supports standardized and vendor-specific data models
- The open technology platform allows for customization and extension
- > Tech support and consulting services come with the service

STPenable provides a complete system for your market data needs If you need a system to organize market data, you need to talk to STPenable. Call us today!

#### Contact information

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# EXHIBIT B



University Homepa RMS Homepage RMS Contacts RMS Search

## **Retention Schedules**

### On this page:

- What is a retention schedule?
- What is a golden copy?
- How do I choose a trigger point?

#### What is a retention schedule?

A retention schedule sets out the amount of time that the University needs to keep its records. It applies to records in all formats, including paper and electronic information.

## What is a golden copy?

The 'golden copy' is the official, master version of a record. There can only be one golden copy of each record. A golden copy exists from the point of creation of a record not just once the record is no longer used. It is important to remember that the golden copy of a record exists for all stages of its development. Therefore during the early stages of a records development the golden copy may be a draft. When a record is superseded by an updated version a golden copy may still exist for the previous version, for example with assessment regulations which are updated every year, it is not just the current regulations which have a golden copy – a golden copy should exist for each previous set of regulations, and there will also be a golden copy of the draft of the next year's regulations.

## How do I choose a trigger point?

It is important to choose a trigger point which you can implement. For example, there is no point in saying that records should be kept until an individual dies, if you have no reliable way of knowing whether or not they are alive. Instead, choose a trigger point based on the information you have about that individual; in this case 100th birthday might be a suitable trigger point.

If you have any comments or suggestions regarding these pages please e-mail them to us at recordsmanagement@ed.ac.uk

Terms and conditions, legal disclaimer and copyright information

Page last updated: Monday February 05 2007

# EXHIBIT C

# Inside Reference Data

August 2007 Volume 2 Number 4

www.irdonline.com

# The Race to Lay the Golden Copy Egg

By building a golden source security master, firms can realize cost savings through reductions in data management issues fuelled by improved data quality, say BusinessEdge Solutions' Rachel Haines and Jignesh Prajapati. Here, they outline the best strategy for success

> Financial institutions are increasingly focusing on consolidating data across silos and making organizational changes to introduce an enterprise-wide data management strategy. It is now recognized that a golden source security master can reduce cost while increasing data quality, driving the need for developing a road-map strategy for successful project implementation.

> The 'golden copy' security master-a single, centralized, trusted data source for all enterprise-wide consumers of security master data-serves to facilitate enterprise-wide management of security data and acts as a system of record for security data. This golden copy data hub receives security data from various internal sources and external data providers, applies business rules that translate, validate and enrich the data, then publishes the golden data to consuming systems such as trading systems, compliance, accounting, performance measurement, client reporting, portfolio research and so on.

An enterprise security master (ESM) will increase user satisfaction and trust in the data, while at the same time reducing data propagation and inconsistencies across the enterprise. The golden copy security master will also provide opportunities to optimize business processes and produce a more efficient security master data workflow throughout the enterprise. For example,

the time it takes to manually look up security master data on a Bloomberg terminal can be eliminated with realtime data requests and fulfillment from the data vendor itself.

However, implementation of an ESM environment must be accompanied by a data management function. An ESM should not be expected to run on 'autopilot.' There must be a data management function that reviews, researches and scrubs data exceptions that do not pass validation, and provide the necessary alerts and updates to downstream users.

#### **Opportunities**

With a number of benefits, financial institutions will be able to realize cost savings with a golden copy security master through:

- Increased data quality
- · Central acquisition of data avoiding redundant data costs
- Enhanced operational efficiencies and more timely receipt of refreshed data (ie, refreshed security master file (SMF) data to complement 5:00am start-of-day holdings feeds to trade order management platforms either directly through a hub or indirectly via the accounting environment)
- Reductions in data management issues, exceptions created by manual processes, and operational costs
- Reductions in operational risk
- · Ease of system scalability

A single golden copy security master data hub that contains data trusted to be complete and correct, will reduce 'oneoff' data propagation by various users who may not feel the current state security master data meets their analysis or reporting needs.

#### Business-Side Challenges

But as with most much beneficial projects, there tends to be a few barriers to overcome before this finishing line can be crossed. The biggest business challenge facing many firms is to garner executive sponsorship and build a business case, along with ROI (return on investment) analysis, as it takes some time to realize tangible returns from softer items such as 'increased data quality.'

Another key challenge will be the solution's ability to meet the data needs of each constituency. They often have their own unique requirements for security master data. Today's ESM technology allows for the creation of an ESM record with the respective sources and attributes as well as maintaining and publishing specific characteristics or attributes for individual business units.

All levels of the enterprise must reach consensus that once implemented, the golden copy security master will become the enterprise system of record for all security data. This means that in future, all data correction must



Rachel Haines is project manager/ business systems analyst at BusinessEdge Solutions

ocuraera 40-2 Filed 10/17/2007 Case 1:07-cv-08421

be completed in the hub and pushed out to dependent systems throughout the enterprise.

Without centralized control, the operational efficiencies associated with correcting and maintaining data at a single point, will be lost.

Also, the ESM must be flexible enough to allow for a trading environment, such as fixed income, to set up its own new security record and to report the new security to the ESM. which in turn will continue to update the respective security record on a daily basis and feed refreshed SMF data to the respective fixed-income trading environment.

#### Implementation hurdles

In terms of completing the actual project, complex integration needs and implementation options are the top technical challenges for successfully introducing a centralized golden copy security master. Integration needs must address the critical issues of establishing a data management function (if one does not exist), decommissioning legacy system SMFs, and harmonizing data flow to existing systems. Throughout, it is important to take into consideration all requirements while establishing an acceptable method for unique security identification, development of the enterprise composite record for each security type, and one-time conversion to the newly created centralized golden copy security master.

Other technical challenges associated with building a golden copy security master revolve around the need to pull together composite security records using many disparate internal and external data sources and data formats, validation of the received data. and timely publication of the golden data. As data inputs are consolidated, it will be important to develop a set of business rules concerning the hierarchy (layers of trust) of data sources and a remediation path for data mismatches

and duplicate securities that arise as a result of conversion/migration from current state systems to the new golden copy security master.

The ongoing challenge will be to identify and develop an agreed-upon enterprise-spanning set of practices for new security setup, enrichment, exception processing, and data publication.

#### Overcoming challenges

One approach that has proved to be very effective in successful implementations of the golden copy security master is the adoption of a roadmap strategy that clearly identifies the current state business processes, data flow and workflow, as well as an agreed-upon future state, and a phased approach to achieve that future state. Once the current state business processes, data flow and workflow are identified, the focus should be on the opportunity to optimize business processes and data costs. This optimization can be achieved in a workshop environment where business and technology partners review and agree upon optimized future state business processes as well as a phased approach to achieving the ultimate future state.

The roadmap must also address the issue of governance: it is critical to establish commonly agreed-upon governance standards that promote the appropriate oversight of business process control, data flow and workflow of the golden copy security master. Through clear definition of the roadmap, the project team will easily be able to facilitate discussions and build consensus across the business, operations and IT groups concerning data management, gover-

nance and ownership. Additionally and importantly, the clearly defined roadmap builds a business case to garner executive sponsorship for the implementation of a golden copy security master.

But integration challenges can be mitigated through clearly defined business requirements that focus on identifying and defining business rules as well as data rules to support business requirements. This type of framework facilitates the definition of enterprise data flows (including identification of data creators and consumers) as well as service-level agreements for data receipt and publication. This approach ensures that all the stakeholders (business as well as technology) can review and validate requirements in an unambiguous fashion for conformance to business processes agreed upon during the roadmap definition process.

Also, overcoming implementation challenges such as varying needs for SMF data can be mitigated with a phased approach. For example, a phased approach may mean that the initial phase may only focus on the implementation of simpler instruments such as equity. Further phases may involve more complex instruments such as fixed income and derivatives then on to additional asset classes as necessary.

At the end of the day, there is no one 'silver bullet' or 'one size fits all' solution. Every firm is different, and a successful creation of a centralized golden copy security master solution depends on understanding and adapting to the unique requirements and processes within an organization.



Jignesh Prajapati is senior consultant, BusinessEdge Solutions

# EXHIBIT D

## **News Release**

Tuesday 17 June 2003, 8:00 GMT

Tuesday 17 June 2003 \$\times\$ BUSINESS \$\times\$ TECHNOLOGY \$\times\$ Asset Control \$\times\$

# Asset Control premiers new business-user solutions, leveraging 'Golden Copy' data for low-cost applications

New York, June 17 /PRNewswire/ -- - Decision-makers empowered with access to their universe of investment data, plus analytics and visualizations - on the desktop or the web

Asset Control, a leading provider of investment data management solutions to the financial industry, today unveiled the two newest additions to the AC Business Suite of user solutions. The solutions AC Surveyor and AC Explorer, respectively, provide Web-based and desktop-based research and analytical applications for use by traders, risk managers, portfolio managers and other financial professionals. They also serve as easy-to-use development environments for creating applications customized to users' business roles.

These solutions can be previewed at Asset Control's booth #3127 at the SIA Technology Management Conference & Exhibit in New York. Asset Control is also demonstrating the recently launched AC Contour curve manager.(1)

"Once a firm has made the investment in centralized business management, how do you keep increasing the ROI? The obvious way is to leverage your data for a variety of business uses across the enterprise. For this, we offer Web-based AC Surveyor and desktop AC Explorer," said Ger Rosenkamp, CEO of Asset Control. "With our AC Plus in-house platform and ACDEX outsourced service providing proven state-of-the-art data integration, we are now rolling out the AC Business Suite of solutions that empower decision-makers with current information and data-based intelligence drawn from the firm's own data stores."

About AC Surveyor and AC Explorer

Both AC Surveyor and AC Explorer enable users to view market data elements for analysis, comparison and graphing. Planned future developments include displaying other types of investment data and research information. Both come with out-of-the-box working templates and also serve as broad-based development environments.

AC Surveyor is currently being implemented by a major UK financial institution to provide access to market data analysis for investment researchers. Easy to deploy, maintain and upgrade, both solutions offer highly economical alternatives to third-party research terminals, leveraging the cleansed data that is already maintained in Asset Control in-house or outsourced platforms.

AC Surveyor offers Web accessibility to institutional users at any location. In addition to its out-of-the-box page templates, AC Surveyor offers a robust development environment for Web applications. The contents, look and feel of its Web pages can be defined through XML files by knowledgeable staff, offering data sets, graphing and analytical results for the specific requirements of different user groups. This development framework includes both security features and access to a library of components, such as cross-currency tables and various types of graphs and searching components.

AC Explorer is a Java desktop application offering research and analysis of tick, end-of-day and historic data located in the AC Data Suite. Users can design their own layouts, maintain templates of indicators and studies, configure forms to conduct repeated searches on certain fields (such as interest rates or bond ratings), or open multiple windows to work on several research tasks concurrently. Charting options for research and comparisons enable users to view data and apply indicators to calculate

moving averages or volatility. An optional 4-D graphing module provides even more sophisticated visualizations of the data.

About Asset Control

Asset Control provides comprehensive and cost-effective solutions for improving efficiency and cutting costs of investment data management, as well as for gaining more value from existing data resources. Data coverage includes reference (security master), corporate actions, issuer, counterparty and settlement, historic and real-time market data. Asset Control aggregates data from vendors and inhouse systems, normalizing, cleansing, and consolidating it into a composite "golden copy" set.

Asset Control offers quick-to-implement in-house data management solutions (http://www.asset-control.com/) and ACDEX outsourced data management (http://www.acdex.com/), aligned with industry standards such as ISO 15022. With a broad range of connectivity options, intuitive network and Web user interfaces, a growing family of business applications, interfaces with industry-leading application software, and powerful data transformation functionality, Asset Control is a one-stop solution for mission-critical challenges -- including STP, trading and risk management, and integration of front-, middle- and back-office systems.

Customers include the London Clearing House (LCH), Abbey National, ABN AMRO, Bankgesellschaft Berlin, Barclays Capital, Bayerische Landesbank, BBVA, Commerzbank, Dresdner Bank, Deutsche Bank, Hamburgische Landesbank, Harvard Management Company, HypoVereinsbank, ING, ITG, Robeco, Societe Generaleand Union Investment, as well as a super-major global energy group. Established in 1991, Asset Control is a privately held firm with operations in London, New York and the Netherlands.

1 - Asset Control Empowers Risk and Research Users With AC Contour for Curves and Surfaces," Asset Control, April 14, 2003.

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